Manchester Water Works Water Quality Report for 2013

123 Town Square

Manchester, Ky 40962

Meetings: Manchester City Hall

eting Dates and Time: 3rd Monday each month

KY0260737

Mike White

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Manager:

6:00 PM

Water - Essential for Life

This report is designed to inform the public about the quality of water and services provided on a daily basis. Our commitment is to provide our customers with a safe, clean, and reliable supply of drinking water. We want to assure that we will continue to monitor, improve, and protect the water system and deliver a high quality product. Water is the most indispensable product in every home and we ask everyone to be conservative and help us in our efforts to protect the water source and the water system.

Manchester Water Works gets raw water from Bert T Combs Lake, which is a surface water source. Water is also pumped into the lake from Goose Creek, also a surface water source. If you live along Hwy 80 from Curry Branch to the Laurel County line, we purchase your water from East Laurel Water District(PWSID:KY-0630797). Thier water source is Wood Creek Lake, a surface water source. If you live along Hwy 11 South from Roller Dome Hollow to the Knox County line, your water may come from Bert T Combs Lake or we may purchase it from Barbourville Utility Commission(PWSID:KY-0610016). Thier water source is Laurel Lake, which is also a surface water source. They may also draw water from the Cumberland River, a surface water source. In the following treated water summary table, water from Manchester Water Works will be designated as A. Water from East Laurel Water District will be designated as B and water from Barbourville Utility Commission will be designated as C. The Safe Drinking Water Act Amendments of 1996 requires every water system to prepare a source water assessment

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and may pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include: Microbial contaminants, such as viruses and bacteria, (sewage plants, septic systems, livestock operations, or wildlife). Inorganic contaminants, such as salts and metals, (naturally occurring or from stormwater runoff, wastewater discharges, oil and gas production, mining, or farming). Pesticides and herbicides, (stormwater runoff, agriculture or residential uses). Organic chemical contaminants, including synthetic and volatile organic chemicals, (by-products of industrial processes and petroleum production, or from gas stations, stormwater runoff, or septic systems). Radioactive contaminants, (naturally occurring or from oil and gas production or mining activities).

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water to provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Some or all of these definitions may be found in this report:

Maximum Contaminant Level (MCL) - the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment Cause serious health problems, Maximum Contaminant Level Goal (MCLG) - the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) - the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of components associated with service Maximum Residual Disinfectant Level Goal (MRDLG) - the level of a drinking water disinfectant lines and home plumbing. Your local below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the public water system is responsible for use of disinfectants to control microbial contaminants.

Below Detection Levels (BDL) - laboratory analysis indicates that the contaminant is not present. **Not Applicable (N/A)** - does not apply.

Parts per million (ppm) - or milligrams per liter, (mg/l). One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) - or micrograms per liter, (µg/L). One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) - a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - a measure of the presence of asbestos fibers that are longer than 10 exposure is available from the Sa Nephelometric Turbidity Unit (NTU) - a measure of the clarity of water. Turbidity has no health of prinking water. Hotline or effects. However, turbidity can provide a medium for microbial growth. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

Variances & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system shall follow.

Treatment Technique (TT) - a required process intended to reduce the level of a contaminant in

Information About Lead:

cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Your local providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Water Hotline or at The data presented in this report are from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data in this table, though representative, may be more than one year old. Unless otherwise noted, the report level is the highest level detected.

A=Manchester Water Works B=East Laurel Water District C=Barbour									ourville Utility Commission				
PWSID=KY0260737	PWSID=KY0630797					PWSID=KY0610016							
	Allowable		ırc	Highest Si	ngle	gle		Violation					
			Source	Measurem	C		Monthly '	ll .	Likely Source of Turbidity				
Turbidity (NTU) TT	No more t	han 1 NTU*	A=				100	No		-			
* Representative samples	Less than 0.3 NTU in		B=	0.09			100	No		Soil runoff			
of filtered water	95% monthly samples		C=	0.09		100	No						
Regulated Contaminant Test Results													
Contaminant		Source	Report R			e	Date of	Violation	Likely Source of				
[code] (units)	MCL	MCLG	Sot	Level of Detec		tion	Sample		Contamination				
Microbiological Cont	aminant	S											
Total Coliform Bacteria	1	0	B=	1		N/A		Sep-13	Sep-13 No				
# or % positive samples										Naturally present in the environment			
Inorganic Contamina	nts												
Barium										Drilling wastes; metal refineries; erosion of			
[1010] (ppm)	2	2	B=	0.013	0.013	to	0.013	Feb-13	No	natural deposits			
			C=	0.018	0.018	to	0.018	Feb-13	No				
Copper [1022] (ppm)	AL =		A=	0.190	0	to	0.5	Aug-13	No	Corrosion of household plumbing systems			
sites exceeding action level	1.3	1.3	B=	0.452	N/A	to	N/A	Sep-12	No				
A=0			C=	0.017	0	to	0.039	Sep-12	No				
B=0				(90th				•					
C=0				percentile)									
Fluoride			A=	1.01	0.85	to	1.24	Jan-13	No	Water additive which promotes strong teeth			
[1025] (ppm)	4	4	B=	1.14	0.78	to	1.14	Dec-13	No				
[] (FF)	-	-	C=	0.7	0.7	to	0.7	Feb-13	No				
Lead [1030] (ppb)	AL =		Ť	0.7	0.7		0.,	100 10	110	Corrosion of household plumbing systems			
sites exceeding action level	15	0	A=	0	0	to	3	Sep-12		, , ,			
A=0	15	Ü	B=	2	N/A	to	N/A	Sep-12	No				
B=1			D-	(90th	10/11	10	14/11	Sep 12	110				
C=0				percentile)									
Nitrate			A=	0.18	0.18	to	0.18	Mar-13	No	Runoff from fertilizer use; leaching from			
[1040] (ppm)	10	10	B=	0.18	0.18	to	0.18	Aug-13	No	septic tanks, sewage; erosion of natural			
[1040] (ppiii)	10	10	Ъ-	0.4	0.4	ιο	0.4	Aug-13	140	deposits			
Disinfectants/Disinfect	rtion By	roducts and	d Pre	cursors	1								
Total Organic Carbon (ppm)		or outlets time	A=	1.04	1	to	1.29		No	Naturally present in environment.			
(report level=lowest avg.	TT*	N/A	B=	2.31	1.14	to	3.49	N/A	No				
range of monthly ratios)	- 1 1	17/11	C=	1	1	to	1	14/11	No				
,	removal a	chieved to the 9						monthly ratio		00 or greater for compliance.			
Chlorine	MRDL	MRDLG	A=	1.42	0.9	to	2	N/A	No	Water additive used to control microbes.			
	= 4	= 4	B=	1.42	0.9	to	2.16	N/A N/A	No				
(ppm)	- 4	- 4	C=	1.03	0.42	to	1.90	N/A N/A	No				
			C-	(highest	0.01	ω	1.70	1 V / A	140				
HAA (ppb) (all sites)			A=	average)	7	to	73	N/A	No*	Byproduct of drinking water disinfection			
	60	NI/A				to				2) Product of drinking water distinction			
[Haloacetic acids]	60	N/A	B=	35	13	to	48	N/A	No No				
			C=	24	2	to	36	N/A	No				
*less than 1 year of quarterly	y sampling			(system average)	(range of	cuet	em sites)						
HAA (ppb)	sumpning		A=	12	22	to	49	N/A	No*	Byproduct of drinking water disinfection			
[Haloacetic acids]			B=	N/A	26	to	38	N/A N/A	No*	7,			
(Individual Sites)	60	N/A	ъ-	(locational			idual sites)	11/71	110				
		1N/ A		,	(range or II	iui V	iduai sites)						
*sampling started 4th quarter	1, 2013		Α.	average)	0	+-	76	NT/A	NT. ↓	Byproduct of drinking water disinfection			
TTHM (ppb) (all sites)	90	NT/A	A=	45 47	8	to	76 05	N/A	No*	Dyproduct of drinking water distinection			
[total trihalomethanes]	80	N/A	B=	47	16	to	95 86	N/A	No No				
			C=	46	18	to	86	N/A	No				
When the start of	,			(system	(
*less than 1 year of quarterly	sampling			average)	(range of	syst	em sites)]	1			

TTHM (ppb)			A=	29	64	to	116	N/A	No*	Byproduct of drinking water disinfection.
[total trihalomethanes]	80	N/A	B=	N/A	26	to	43	N/A	No*	
(Individual Sites)				(locational	nal (range of individual sites)					
*sampling started 4th quarter, 2013				average)						

Violations

Manchester Water Works is required to have your Consumer Confidence Report available by July 1st of the following year. We did not post the 2012 CCR on our website until after the due date of July 1st, 2013. This is a violation. There is nothing you need to do at this time and an alternative water source is not needed. The 2013 CCR will be available on our website by July 1st, 2014. We have also added the 2012 CCR to it in case you missed last years post. If you would like a copy of our 2013 or 2012 CCR mailed to you, please call Elsie Woods at City Hall at 606-598-3555 or write to Manchester Water Works, 123 Town Square, Manchester, Ky 40962. [Please share this information with all the other people who drink this water, especially those who may not have received this notice directly(for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.]

Manchester Water Works(PWSID=KY0260737) Source Water Assessment Plan(SWAP) is available for inspection at City Hall. Activities and land uses upstream of Manchester Water Works source of water can pose potential risks to your drinking water. An analysis of the susceptibility of the Manchester water supply to contamination indicates that this susceptibility is generally moderate. The potential threats immediately upstream of the Goose Creek water supply are bridges and culverts, KPDES dischrgers, railroads, row crops, sewer lines, Tier II chemical users, underground storage tanks, Superfund sites, landfills, waste generators and transporters, and active mining sites. The largest potential contaminant threat immediately upstream of the Bert T Combs Lake is land coverage. The predominant land cover could be subject to logging, which may result in soil erosion if Best Management Practices are not carefully applied.

East Laurel Water District"s(PWSID=KY0630797) SWAP is available for inspection at the Laurel County Judge's office or the Cumberland Valley Area Development District office in London. Their source water assessment indicates that some of the activities immediately upstream of the water supply pose a high susceptibility to contamination. Activities that have the potential to affect the water quality and the cost of treating the water includes agricultural, transportation, landfills and dumps, and human and animal activities. The presence of excessive nutrients is of particular concern. Two general sources of nutrients in the water supply are from natural and man-made sources. Nutrients are either dumped directly into waterways or swept through the areas when rain washes over the land.

Barbourville's(PWSID=KY0610016) SWAP is available for inspection at the Cumberland Valley Area Development District office in London. Their source water assessment indicates that the susceptibility to contamination for the primary intake on Laurel Lake is borderline. The susceptibility to the Cumberland River intake is generally moderate. The potential contaminates could include: highway maintainance and runoff, railroads; permitted wastewater point sources; waste storage tanks/storage tank leaks, above and below ground; onsite/decentralizied/septic systems, straight pipes; and land cover.

Thanks to all of our customers for allowing us to provide you with drinking water. Manchester Water Works goal is to provide quality water to every tap. We ask that all our customers help us protect our water system and to always practice good water conservation to protect our limited resources. Please feel free to give us a call if you have any questions or concerns.